

X. Polarizers

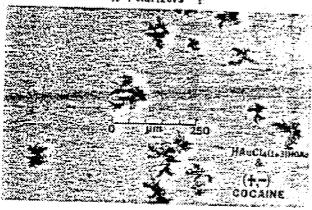


FIG. 3-Gold chloride with 1+. +1-eocaine.

TABLE 3-Abundance ratios.

Compound	sn/e '74:'96	m/e 152:150
Cocsine	1 €	§ 3
Seudococaine	€1	\$~2 3≈7
Mococaine	<1	2-16
scudosilococaine	>1	3-3

122, 187, 198, and 272 are at a lower relative abundance and the molecular ion  $(m/e \ \, )03)$  is at a higher relative abundance than the corresponding ions of allococuine.

The mass spectral data for the cocaines were obtained by direct insertion techniques rather than via a GLC interface. This was necessitated by a tendency of the less stable diastereoisomers, in particular pseudosilococaine, to thermally eliminate the elements of benzoic acid. The product of this thermal elimination is 2-cachomethoxytropidine (anhydroecyonine methyl ester). The electron impact fragmentation of this compound results in a spectrum with an m/e 152 base peak (Fig. 12). Since the differentiation of the diastereoisomeric cocaines relies heavily on the relative abundance of the ion at m/e 152, thermal elimination in the GLC/MS interface could interfere with that assessment.